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A comparative study of local railway networks in Poland and the Czech Republic

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Abstract. Despite similar economic and legal conditions in Poland and the Czech Republic, the situation of local railway lines in each of these neighbouring countries is completely different. In Poland more than 90% of third-category and over 44% of second-category lines were closed down between 1989 and 2011, whereas the Czech Republic did away with only 14% of its regional lines during the same period. This means that two decades of transformation processes in Poland have resulted in a massive decline in the importance of the regional railway network, which is one of the most important symptoms of a rapid decline in the role of the railway transport system as a whole. By contrast, the Czech Republic still has one of the densest railway networks in Europe, thanks to the vital role of its local lines. The main reasons for this big difference between the two countries – and for the very minor importance of the regional railway service in Poland – are the lack of a realistic transport policy at the state level and the badly conducted restructuring of the national PKP railway company (PKP – Polskie Koleje Państwowe, Polish State Railways). Other reasons are the poor state of the railway infrastructure and also factors connected with the structure of settlement, as well as the historical development of the railways in certain parts of the country. These factors have merely reinforced an already vast bureaucracy and aggravated the wastage for which the PKP was known during the communist period. The main question that arises concerning the future is whether decision-makers in Poland at both national and regional levels – as well as those in the railway companies themselves – will be able to follow the Czech example, as this would appear to be the best solution for the greatest crisis the Polish railway system has seen in decades.

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Contents:

1. Introduction. The concept of local railway lines and their role in the transport system	126
2. The aim of the article and methods of research	126
3. The delimitation of local railway lines in Poland	127
4. Local railway lines in Poland at the end of the communist period and today	127

5. The delimitation of local railway lines in the Czech Republic	128
6. Local railway lines in the Czech Republic at the end of the communist period and today	129
7. Local railways in the Polish and Czech networks – a comparison	131
8. The reasons for the differences	133
9. A short comparison of approaches to the local railway question in other Central European countries – Slovakia and Austria	135
10. Conclusions	136
References	137

1. Introduction. The concept of local railway lines and their role in the transport system

Local railway lines are those which do not belong to any network of national significance and which are characterised by relatively low technical parameters (a low minimum curve radius, a high maximum gradient and low quality of the track). In many European countries the responsibility for organising services on these lines lies with local governments – which is why national railway companies here often play a less important role than regional railway operators, including those owned by private capital.

In Central Europe local railway lines were mostly built between about 1880 and 1914, once the main networks had been constructed. The main aim of local railways was to connect towns of local importance, industrial plants or tourist resorts with the main railway line. New local lines led to an increase in the density of the country's entire transport system. One important benefit of these lines was that they boosted the profitability of the main lines to which they were connected (Kreft-Kettermann, 1989: 34). Local lines were usually constructed by companies formed by local authorities and industrialists, though with considerable financial aid from the state. This was made possible thanks to special local railway acts which were passed by the parliaments of many countries (e.g. Prussia in 1879 and Austria-Hungary in 1880), which provided for various tax exemptions – not only for those firms which were responsible for the construction of local railways, but also for those which were responsible for running them (Kupka, 1898). Up to the second half of the 20th century the local railways – which had a monopoly on passenger and goods transport – played a vital role in the economy of the regions and exerted a strong influence on their spatial organisation (Kreft-Kettermann, 1989: 69). They stimulated building and trade, increased the profitability of agriculture and enabled workers to live outside industrial centres (Koziański, 1993a: 84).

The role of local railway lines underwent a complete change in the second half of the 20th century because of the rapid growth of motorisation. Individual road transport, which is much more flexible and offers 'door-to-door' journeys, has in many cases displaced local railways. Nowadays it is the car and not the railway that has a fundamental bearing on spatial organisation, not least because of its independence of the fixed route (Kreft-Kettermann, 1989: 70).

The political, economic and social transformation of Central-Eastern Europe has ushered in the rapid growth of private motorisation, which has been accompanied by a fall in the significance of public transport (Ivan, 2010: 394). This process has been intensified by residential and industrial suburbanisation (Ivan, 2010: 395). As a result, the role of local railway lines in the economy and in spatial organisation is nowadays generally less important. According to Marada et al. (2006: 54) it is often limited to connecting mountainous areas (because of the higher reliability of railways in winter) and to providing services for tourists (because of the attractiveness of a particular line). Even if the present significance of local railways cannot be compared with their role at the beginning of the 20th century, local railways can nevertheless continue to be an important element of the transport system at the regional level. Their importance, however, differs significantly from one country to another.

2. The aim of the article and methods of research

The aim of this article is to compare the respective situations of local railway lines in Poland and the Czech Republic and to attempt to discover the reasons for any differences. In order to be able to discuss the present importance of these railway lines in both countries, we must first analyse their respective situations as they were in 1989.

The methods of research that were used comprise an analysis of railway timetables, cartographic and literature sources – including railway company documents and acts of parliament – and a basic quantitative analysis of the railway networks of Poland and the Czech Republic.

This article will discuss only normal-gauge railway lines on which there is (or has been) a regular passenger service on working days throughout the year. Lines which operate only at weekends or during the tourist season (e.g. Łębork – Łeba, Bońi Les – Lednice and Chomutov – Vejprty) are therefore excluded from the present analysis.

3. The delimitation of local railway lines in Poland

In order to delimit local railway lines in the Polish network, two criteria may be applied. The first is a technical one and relates to the division of Polish railway lines into four categories according to their technical characteristics. This is an official classification that can be found in a decree of the Ministry of Transport issued in 1998. Classic local lines are those belonging to the third category, whose official heading reads 'of local importance' (in Polish: '*znaczenia miejscowego*' – Rozporządzenie Ministra Transportu i Gospodarki Morskiej..., 1998). The author of the present article, however, is of the opinion that second-category lines can also be classified as local railway lines – especially after 1989, which saw the beginning of a vast scaling-down of the railway network in Poland. The second criterion relates to the services on the line. According to this criterion, local railway lines

are those on which only stopping trains (in Polish '*pociąg osobowy*' – nowadays '*pociąg regio*') operate.

In Poland neither criterion is very coherent (be it for 1989 or for 2011), as on the one hand quite a few second-category lines (and even some third-category lines) were used by fast trains – especially in 1989 – while on the other hand there are plenty of first-category or even trunk-line sections where only stopping trains are in service. This is connected with the fact that many of these important lines are vital only for freight trains (e.g. the 'coal trunk line' between Herby Nowe and Inowrocław) or with the fact that they play a strategic role as important interregional connections (e.g. Piła – Tczew – as part of the former Prussian Eastern Railway service between Berlin and Gdańsk/Kaliningrad).

4. Local railway lines in Poland at the end of the communist period and today

Local railway lines as defined by both aforementioned criteria were an important element of the Polish railway network until the beginning of the 1990s. They formed a dense system, particularly in the western and northern parts of the country, i.e. in those regions which were in the German partition up to 1918 (Fig. 1).

The situation at the present time is completely different. The development of the Polish national railway system since the beginning of the political, social and economic transformation of the country begun in 1989 has been characterised by a massive scaling down of the network. Between 1989 and 2011 more than 36% of the lines were taken out of passenger

Table 1. The length of railway lines of various types with passenger services in Poland in 1989 and 2011

Type of line	A		B
	1989	2011	
Trunk lines and first-category lines with fast trains	7,850	6,490	–17.3%
Trunk lines and first-category lines with stopping trains only	1,685	2,119	+25.8%
Second-category lines with fast trains	2,014	1,113	–44.7%
Second-category lines with stopping trains only	5,535	3,064	–44.6%
Third-category lines with fast trains	141	184	+30.5%
Third-category lines with stopping trains only	3,716	332	–91.1%
Total	20,941	13,302	–36.4%

Explanation: A – length (in km); B – B – 1989 to 2011 difference

Source: Compiled by the author on the basis of *Sieciowy Rozkład Jazdy Pociągów 1988–1989 & 2010–2011* and D29. Wykaz..., 1985

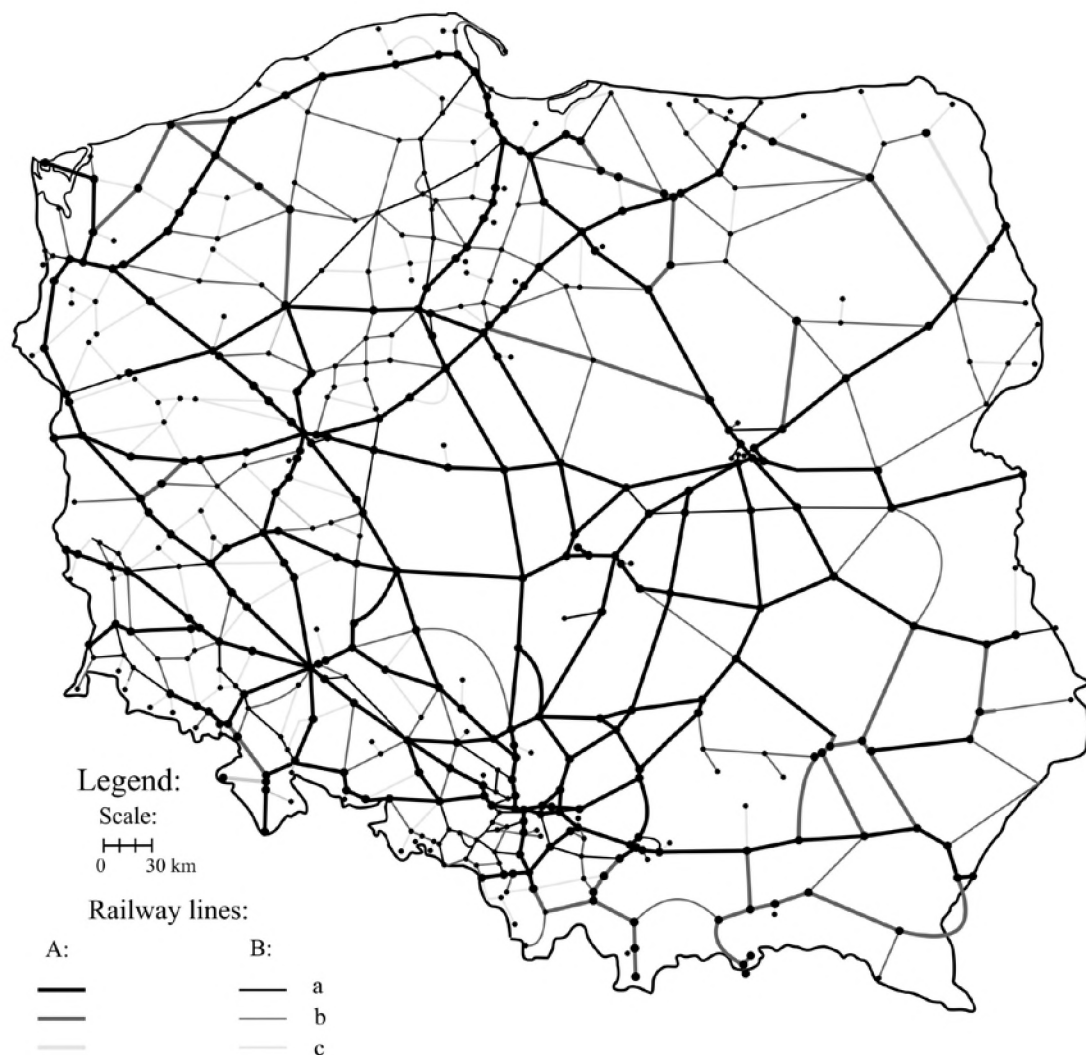


Fig. 1. The Polish railway network in 1989

Explanation: A – on which there is a fast train service during the whole year; B – on which there is a stopping train service only; a – trunk lines and first-category lines; b – second-category lines; c – third-category lines (lines of local importance)

Source: Compiled by the author on the basis of *Sieciowy Rozkład Jazdy Pociągów 1988–1989*; Stankiewicz, Stiasny, 2010; D29. Wykaz..., 1985

service (Table 1). The process of closing down those railway lines which were seen as ‘uneconomic’ had actually already begun during the communist period, but the larger-scale changes date back to the first years of the transformation. The intensity of this scaling down of the Polish railway network was particularly high in the years 1988–1992 and 1998–2002 (Komusiński, 2010). Local lines – especially those of the third category – were the first to be closed down for passenger service. More than 90% of them disappeared from the map of the Polish passenger railways between 1989 and 2011 (Table 1). As a result, not many local lines are now left. The regional differences that were so significant in 1989 are today very small.

However, in the western part of Poland the number and density of local lines is still slightly higher than in other regions (Fig. 2). The quantitative changes in Polish railway lines of different types between 1989 and 2011 are shown in Table 1.

5. The delimitation of local railway lines in the Czech Republic

An unequivocal delimitation of local railway lines in the Czech Republic is much easier because the regional lines are listed in a Government resolution of 1995 which excluded them from the network of

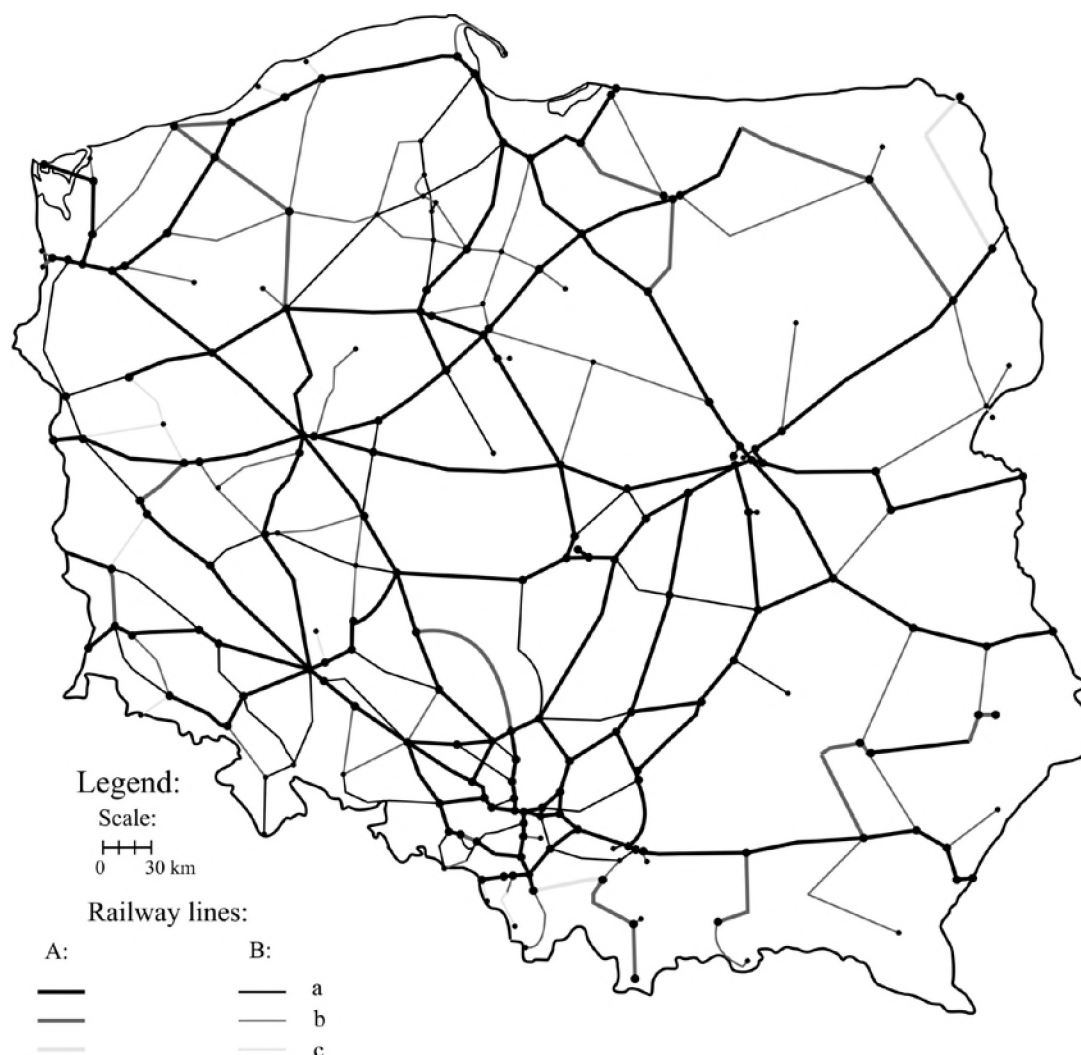


Fig. 2. The Polish railway network in 2011

Explanation: A – on which there is a fast train service during the whole year; B – on which there is a stopping train service only; a – trunk lines and first-category lines; b – second-category lines; c – third-category lines (lines of local importance)

Source: Compiled by the author on the basis of *Sieciowy Rozkład Jazdy Pociągów 2010–2011*; Stankiewicz, Stiasny, 2010; D29. Wykaz..., 1985

nationally important railways (Usnesení vlády České republiky..., 1995). The list comprises 128 lines, which are in fact 133 sections (including all three Czech narrow-gauge lines and two lines which no longer existed in 1989) – thus 128 sections. However, the service criterion can also be applied to the Czech case, and so local lines are also those on which only stopping trains (in Czech *‘osobní vlak’*) as well as fast-stopping trains (in Czech *‘spěšný vlak’*) now run.

Both criteria are quite coherent, as all the ‘official’ regional lines are used only by stopping trains. However, there are some sections belonging to the national network where only stopping trains are in service.

6. Local railway lines in the Czech Republic at the end of the communist period and today

Local railway lines have always played a very important role in the Czech Republic (before 1993 in the Czech part of Czechoslovakia). The extremely high density of the Czech railway network (10.9 km/100 km² in 2011) is largely due to the great number of local lines which exist in all parts of the country. Although some sections were closed down after the end of the communist period, there is not much difference

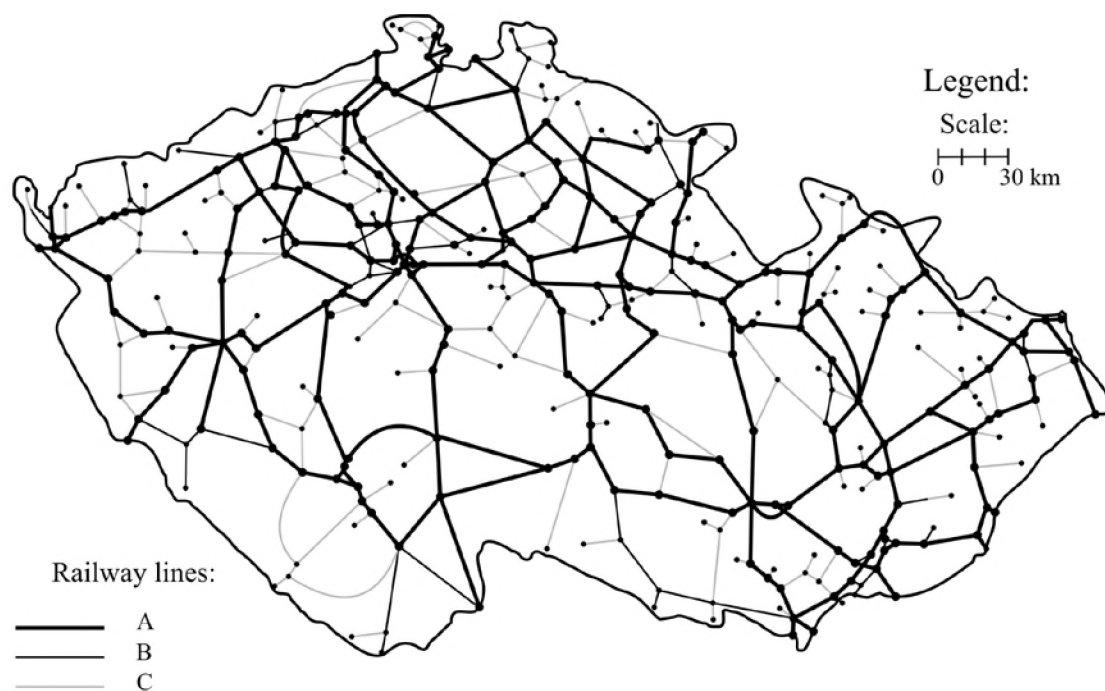


Fig. 3. The Czech railway network in 1989

Explanation: A – of national importance on which there is a fast train service during the whole year; B – of national importance on which there is a stopping train service only; C – regional lines (stopping trains only)

Source: Compiled by the author on the basis of *Atlas drah České republiky*, 2006 and *Jízdní řád ČSD 1989–1990*

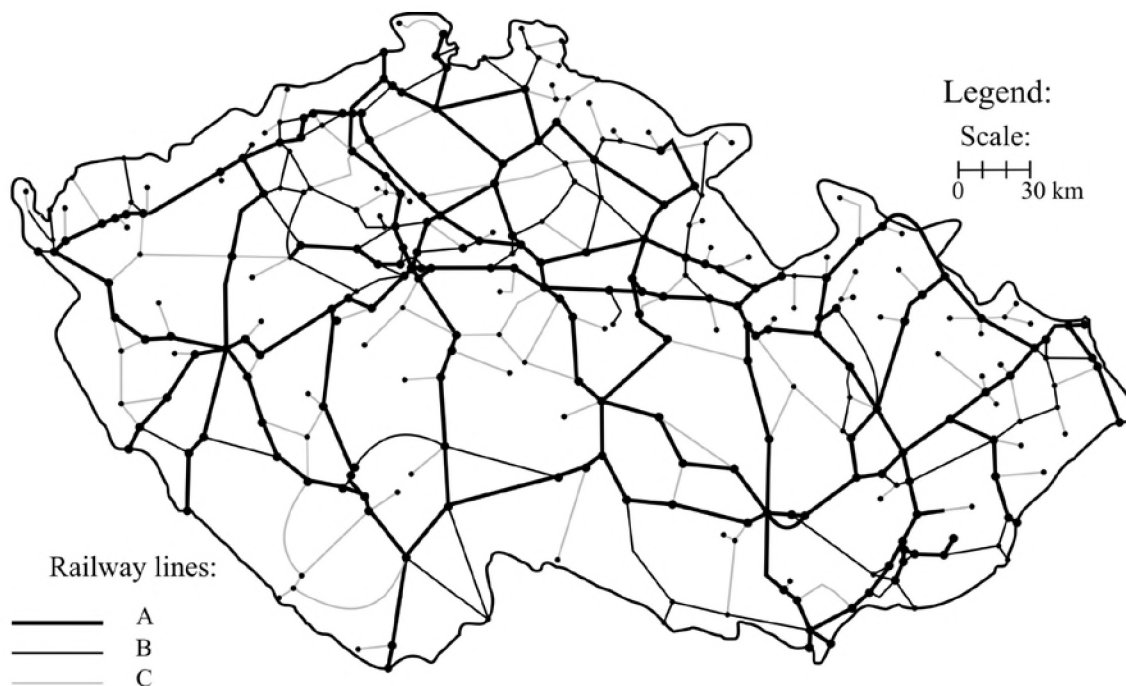


Fig. 4. The Czech railway network in 2011

Explanation: A – of national importance on which there is a fast train service during the whole year; B – of national importance on which there is a stopping train service only; C – regional lines (stopping trains only)

Source: Compiled by the author on the basis of *Atlas drah České republiky*, 2006 and *Jízdní řád 2011*

Table 2. The length of railway lines of various types with passenger services in the Czech Republic in 1989 and 2011

Type of line	A		B
	1989	2011	
Lines of national importance with fast trains	4,999	3,954	–21.0%
Lines of national importance with stopping trains only	1,041	1,947	+87.0%
Regional lines (with stopping trains only)	3,153	2,691	–14.7%
Total	9,193	8,592	–6.5%

Explanation: A – length (in km); B – B – 1989 to 2011 difference

Source: Compiled by the author on the basis of *Jízdní řád 1989–1990 & 2010–2011* and *Usnesení vlády České republiky...*, 1995

between the Czech network of 1989 and that of 2011 (Fig. 3 and 4). Of 128 local lines that were listed in the resolution of 1995, 104 were still in use for passenger services in 2011. The quantitative changes in Czech railway lines of different types between 1989 and 2011 are shown in Table 2.

A characteristic feature of Czech local railways is the high percentage of dead-end lines. These are often lines which were built to connect a tourist resort or a town of local importance with the main line (e.g. Martinice v Krkonoších – Rokytnice nad Jizerou or Suchdol nad Odrou – Nový Jičín město). In 1989 of 128 local railway lines, 75 were dead-end lines (1,123 km out of 3,153 km) and in 2011 the figure was 58 out of 104 lines (901 km out of 2,651 km). The change between 1989 and 2011 is, of course, due to the closing down of some lines. However, two lines running to the border which had been shortened after the Second World War were reopened after 1989 and so are no longer dead-end lines (Tanvald – Harrachov, extended to the Polish border, and Sokolov – Kraslice, extended to the German border).

7. Local railways in the Polish and Czech networks – a comparison

In Poland local railway lines now play hardly any part in the country's transport system. More than 90% of sections of local importance (third-category lines) were closed down for passenger traffic between 1989 and 2011. Those which are still in operation – together with some second-category lines and degraded main connections – are in fact a rather unimportant and neglected element of the Polish railway network. After 1989 many first-category lines and even trunk lines (which used to play an important role as inter-regional connections) were degraded and are now *de facto* local lines (e.g. Kędzierzyn Koźle – Nysa and

Leszno – Głogów). Moreover, the number of trains is usually smaller and journey times are usually longer than they were in 1989. Komusiński (2010: 42–44) has examined this problem on the example of eight railway lines, two of which are second-category lines and three of which are lines with stopping trains only. Between 1988 and 2008 on two lines with stopping trains only the number of trains decreased by 50–57%, while only one line maintained the frequency it had had in 1988. The average speed of trains decreased on one line by 18%, while it increased by 12% and 19% on two other lines. However, Komusiński (2010: 46) stresses the fact that these speeds of about 50 km/h at the very most (and on some lines 30 km/h or even less) cannot be said to come up to passengers' expectations. This is a reflection of the poor state of the railway infrastructure and is also characteristic of many main lines. The percentage share of local lines in the total length of the railway networks of Poland and the Czech Republic are shown in Table 3.

Table 3. The percentage share of local lines in the total length of the railway networks of Poland and the Czech Republic in 2011

Type of line	A	
	a	b
Third-category (PL)/Regional lines (CZ) with stopping trains only	2.50	31.32
All third-category (PL)/Regional lines (CZ)	3.88	31.32
Third- and second-category (PL)/Regional lines (CZ) with stopping trains only	26.90	31.32

Explanation: A – percentage share in the total length of the railway network; a – Poland; b – Czech Republic

Source: Compiled by the author on the basis of *Sieciowy Rozkład Jazdy Pociągów 2010–2011*, *Jízdní řád 2010–2011*, D29. Wykaz..., 1985 and *Usnesení vlády České republiky...*, 1995

The table shows that all the Polish third-category lines, together with the second-category lines where only stopping trains are in service, make up just 26.9% of the total length of the network that is available for passenger services; 'real' local lines (i.e. those of the third category) account for only 3.9%, while third-category lines used only by stopping trains account for just 2.5%. Although local differences in the distribution of these lines are not very significant, the western and northern parts of Poland continue to have slightly denser networks. These, however, are now mostly isolated sections. More extensive systems of local lines – albeit degraded main lines – are located south of Gdańsk (Chojnice, Wierzychucin, Grudziądz), in the vicinity of Poznań and in Lower Silesia.

In the Czech Republic, by contrast, the decrease in the length of local railway lines between 1989 and 2011 was very small and was limited to certain sections of very low importance. The regional lines are still a vital element of the railway system; they make up 31.3% of the total length of the Czech railway network, which is not much less than the 34.3% that it was in 1989. It should be stressed that – unlike in Poland – the standard of service on these lines is usually comparable with that of 1989, owing to similar or even smaller time intervals between the trains. Moreover, the Czech railway infrastructure is generally in quite good condition.

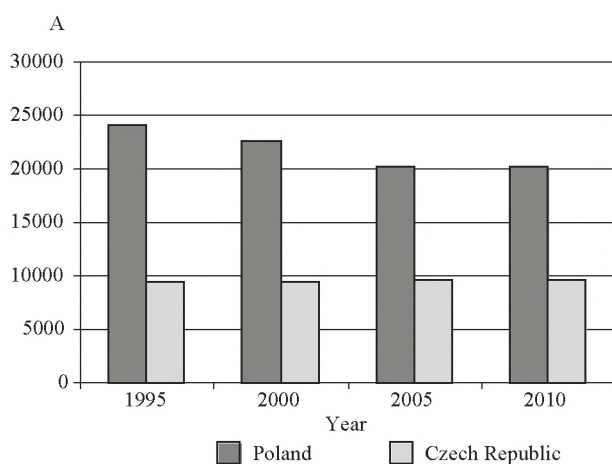


Fig. 5. The total length of the railway networks of Poland and the Czech Republic in 1995, 2000, 2005 and 2010

Explanation: A – the total length of the railway lines [km]

Source: Compiled by the author on the basis of: Ročenka dopravy České Republiky 1999, 2005 & 2010 on the webpages www.sydos.cz (2012); www.stat.gov.pl (2012); <http://epp.eurostat.eu> (2012); www.kolej.most.org.pl (2012)

There are few regional differences in the distribution of local railway lines in the Czech Republic, whose network is almost evenly dense. A more significant concentration of these lines is characteristic for Central Bohemia and Northern Moravia, including Czech Silesia. Not surprisingly, the former region includes counties (Czech *okresy*) where most commuting is done by rail. In the latter region – as in the whole of the eastern part of the Czech Republic – the level of motorisation is low and this correlates with the fact that a greater proportion of commuting is done using public transport (albeit more by bus than by rail – Marada et al, 2006: 55–56).

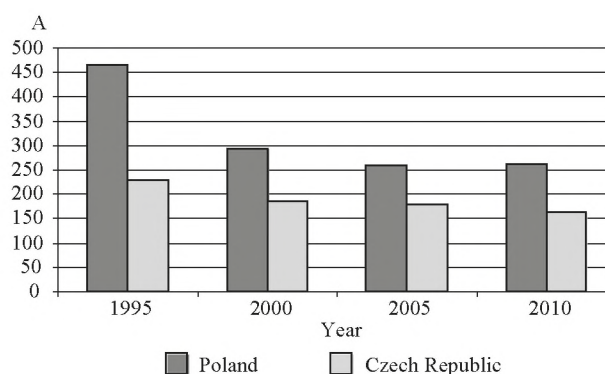


Fig. 6. The total number of passengers transported by the railways in Poland and in the Czech Republic in 1995, 2000, 2005 and 2010

Explanation: A – the total number of passengers [million]

Source: Compiled by the author on the basis of: Ročenka dopravy České Republiky 1999, 2005 & 2010 on the webpages www.sydos.cz (2012); www.stat.gov.pl (2012); www.kolej.most.org.pl (2012)

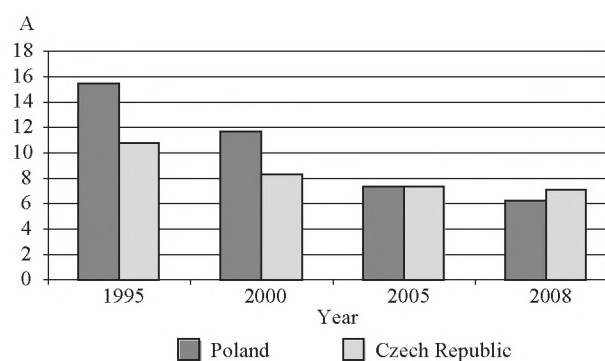


Fig. 7. The percentage share of rail transport in total passenger-kilometres in Poland and the Czech Republic in 1995, 2000, 2005 and 2008

Explanation: A – the percentage share of rail transport in total passenger-km

Source: Compiled by the author on the basis of: <http://epp.eurostat.eu> (2012)

The considerable difference in the importance of local railway lines in Poland and in the Czech Republic is just one aspect of the fundamentally different approach to rail transport in each country. Although the railways still played an important role in the transport systems of both countries at the end of the communist period, the first decade of free market economics brought about a complete change. Figures 5–7 show the most important indicators for Poland and the Czech Republic for the period 1995–2008/2010: the total length of the railway networks, the number of passengers transported and the percentage share of rail transport in total inland passenger-kilometres.

Fig. 5 shows that the total length of the railway network in Poland decreased between 1995 and 2010 from 23,986 km to 20,228 km (i.e. by 15.7%), whereas it increased from 9,430 km to 9,568 km in the Czech Republic (i.e. by 1.5%). The data refers to the total length of the network, i.e. also to lines with freight trains only.

What is much more interesting from the point of view of passenger transport analysis, however, is a comparison of the numbers of passengers transported by rail in Poland and in the Czech Republic (Fig. 6). The decrease in Poland was rather dramatic – from 465.9 million in 1995 to 261.3 million in 2010 (i.e. 43.9%). A fall in the number of rail passengers in the 1990s and 2000s was also characteristic for the Czech Republic, but the scale was considerably smaller – 27.4%. What is more, a stabilisation of the number of passengers can be seen after 2005. This would seem to indicate that over recent years the number of passengers – especially those using rail transport frequently (i.e. commuters) – has levelled off and is not likely to undergo significant changes (Pospíšil, Polanský, 2006: 81).

Probably the best illustration of the different role played by the railways of both countries in the transport of passengers is a comparison of their respective percentage shares in passenger-kilometres. While in 1995 the Polish State Railways transported 15.5% of inland passengers, this share later decreased to a mere 6.2% in just 13 years. In other words, the present impact of rail on the Polish transport market can be described as falling far short of its potential. In the Czech Republic the fall was less significant – from 10.8% in 1995 to 7.1% in 2008. This shows that the Czech railways too have suffered somewhat as a result of the increasing number of private cars, though to a much lesser extent. Indeed, by contrast with Poland, the main losers in the competition with individual road transport have been public bus services and not the railways (Beneš et al., 2008: 39).

8. The reasons for the differences

The reasons for the insignificant role of local railway lines in Poland are to a large extent synonymous with the causes of the general crisis in the national railway system, the symptoms of which are listed above. It is the view of the author of the present article that the condition of local railways can to a certain extent be seen as being one of the indicators of the general state of a country's entire railway transport system. The main lines cannot be taken as such an indicator, as they are invariably given much more attention by the authorities and, as a result, are often the only railways that are in relatively good condition. A good example of a country where the role of regional and local railway services is rather insignificant while at the same time many new high speed lines are being built is Spain (or, in part, France). The reasons for the general decline of the railways in Poland have been listed in many publications, e.g. by Taylor (2007) and Koziarski (1993b, 1995). Taylor (2007) divides them into two categories: external, i.e. those inherent in the State, and internal ones, i.e. those inherent in the Polish State Railways and its present successors. Among the former the most important factor is the railway transport policy of the State, which Taylor describes as being incompetent, deficient and inconsistent (Taylor, 2007: 183). One of the most significant results of this policy is the very bad financial situation of Polish railways (Taylor, 2007: 183–185). This permanent financial crisis has a bearing on the condition of rolling stock and, in particular, on infrastructure, whose condition – in the present author's opinion – can only be described as disastrous. In his book on the railway system of the industrial urban agglomerations of the southern macroregion of Poland – written at the end of the communist period – Koziarski (1989: 39) sees the poor state of the infrastructure as being one of the most important reasons for the closing down of local railway lines in this part of Poland. The areas of neglect listed by Koziarski – the poor condition of the track, points, signal systems and also the rolling stock – have plagued local rail connections in all regions of Poland since the 1980s or even earlier. Koziarski (1993b: 177) writes that many local lines remained in service until the condition of the infrastructure finally made it impossible for it to be used any more. The author of the present article is of the opinion that the closing down of passenger services on several 'uneconomic' Polish railway lines bears all the hallmarks of a vicious circle. The low number of passengers results in low

profitability, which in turn leads to the closure of the service. The result has been a constant decrease in the number of passengers. This process – which is peculiar not only to Poland – is described in many publications (e.g. Marada, Květoň 2010: 22). The restructuring process of the PKP national railway company that was begun in 2000 – and in particular the saddling of the regional governments (voivodships) with responsibility for the *Przewozy Regionalne* company (regional railway service) in 2009 – have multiplied the problems mentioned above and have exacerbated chaos on the Polish railways. Several companies are active in the local railways sector: apart from the biggest railway company – *Przewozy Regionalne* – which has 16 owners (i.e. all the voivodships), there are also firms which operate only in one voivodship (Arriva RP in the Kujawsko-Pomorskie voivodship) and regional railway companies created by regional authorities in the Mazowieckie, Śląskie, Dolnośląskie, and Wielkopolskie voivodships. Paradoxically, this rather high level of liberalisation has often brought with it no improvement in standards of service – nor even better management – because the decisions of local governments to create their own railway companies are frequently purely political and the new companies quite simply inherit or imitate the bureaucratic structures of the PKP and the *Przewozy Regionalne* companies.

From among the internal reasons for the decline of Polish railways, Taylor (2007) singles out disastrous management, which manifests itself in wastage and a lack of ideas for any improvement (Taylor, 2007: 190). The author of the present article thinks that other consequences of bad management that ought to be emphasised are the enormous bureaucracy and unjustifiable proliferation of employees both in the PKP and in its successor company *Przewozy Regionalne* (or regional railway service). It is also his opinion that one of the most disastrous aspects of this wastage with respect to local railways was the rolling-stock policy of the PKP up to the beginning of the 21st century. During the communist period and in the 1990s the Polish State Railways used heavy diesel locomotives (e.g. class SU 45 or ST 43) with one or two carriages – instead of light railcars – even on minor lines. The restructuring process of the PKP in the early years of the 21st century gradually changed this situation, but it was a step taken at least 30 years too late, when most of the local lines had already been closed down.

The author of the present article is of the opinion that in addition to the reasons given above for the scaling down of the Polish passenger railway system, certain general historical and geographical factors

deserve mention. In the 19th century policies relating to the development of the railways in Poland did not always take into consideration the needs of the inhabitants of the area where a new line was to be built. This was especially true of the Russian partition, where the government's priority was to construct main connections between the biggest cities in a straight line, e.g. the Warsaw – Białystok – Vilnius – St. Petersburg trunk line. As a result, many an important town either had no railway station at all, or the station was very far away from the town centre (Lijewski, 1986: 56). It was above all in the central and eastern parts of Poland (in the former Russian partition) that the location of many towns with regard to the railway network was rather unfavourable, e.g. Zamość and Łomża (which were voivodeships or county towns between 1975 and 1998). Lijewski (1985: 20) stresses that this factor, combined with the low density of the railway network, the low frequency of trains and a lack of coordination between timetables was responsible for the minor role played by rail transport in journeys to county towns, e.g. the capitals of the Suwalskie, Włocławskie and Sieradzkie voivodeships (according to the former administrative division of Poland into 49 voivodships between 1975 and 1999). The author of the present article is also of the opinion that one factor which has favoured the rapid decline in the role played by Polish railways in commuting – especially after 1989 – is the scattered distribution of settlement and workplaces in the country. The political, social and economic transformations begun in the 1990s have increased this scattering, which is connected with processes such as suburbanisation and the decline of traditional heavy industry. This has usually led to a lengthening of the walking distance to the nearest railway station, which is one of the most important factors taken into consideration when deciding which form of public transport to choose for commuting (Ivan, 2010: 397, 409). As a result, it has no longer been possible – or even relatively simple – to maintain the important role of the railways as a means of transport used by commuters, especially given the extremely rapid growth of motorisation and the equally rapid development of private bus companies in many parts of the country.

The reasons for the totally different situation of local railways in the Czech Republic are to a certain extent the exact opposite of the circumstances of the development of the railways in Poland. The author of the present article is of the opinion that the most important factors which enabled the Czechs to maintain a very dense local line network were the country's transport policy and the management policies of

Czech State Railways (ČD), as well as the fact that the historical and geographical factors which affected the development of the railways in the Russian partition of Poland do not apply (to any significant extent, at least) in the case of the Czech Republic.

The Czech State transport policy with respect to the railways (also at a local level) includes concrete items such as the introduction of lines on which trains should run at regular intervals and the integration of rail and road transport in the regions by means of a common fare system (Dopravní politika České republiky: 2005). Although – as in Poland – responsibility for regional transport in the Czech Republic now lies with the governments of the regions (in Czech *kraje*) this does not on the whole lead to disputes relating to competence and financial problems, as the authorities are aware of the fact that a stable offer regarding public transport in the regions must be maintained.

The second important reason for the success of local railways in the Czech Republic is the management policy of the passenger-train operator ČD. Paradoxically, the level of liberalisation of the railway market in the Czech Republic is much lower than in Poland, as only five regional railways (of a total length of 130 km) are run by companies other than Czech State Railways. However, the management policies of the national company have been successful, the prime example being a proper rolling-stock policy that has resulted in investments in rail cars, which have a lower fuel consumption, greater acceleration and a much less destructive influence on the track. As early as in 1946 the Czechoslovak State Railways (ČSD) ordered new class M131.1 railcars, of which 549 were built. Their successors – the class 810 railcars, of which 680 were built between 1973 and 1984 – have rescued literally hundreds of kilometres of local railway lines (Bittner et al., 2006). The first decade of the 21st century brought new investments in rolling stock, including the modernisation of the class 810 and 852/853 railcars (the new classes being 814 and 854). Beneš et al. (2008: 39) see these investments as an ‘improved transport culture’ which, together with rising fuel prices, enhances the significant role played by the railways in the Czech transport system. A good illustration of this effective management in the Czech Republic can also be a comparison between the number of passengers [P] and the number of railway employees [E]. In 2004 the ČD transported 180,300 passengers and had 73,800 employees. In Poland the corresponding numbers for the same year were: P = 265,700 and E = 134,000 (www.ceskedrahy.cd: 2011 and www.pkp.pl: 2011). A comparison of

the quotients $Q = P/E$ shows the difference between both State railways quite clearly: $Q_{\text{Czech Republic}} = 2.44$, whereas $Q_{\text{Poland}} = 1.98$.

A third reason for the success of Czech local railways is their historical development in the times of the Austro-Hungarian Empire, whose authorities were favourable to the idea of connecting towns of local importance. Lines of this kind were usually built by companies set up by local authorities and industrialists on the basis of the Local Railway Act (German *Lokalbahngesetz*) of 25th May 1880, which provided for State aid and tax exemptions (Kupka, 1898: 484, 488).

A further important reason for the success of Czech local railways is the fact that the distribution of settlement and workplaces in the Czech Republic is generally less scattered than in Poland. Together with the factors mentioned above, this enables the Czech railways to play a much more important role in commuting than those of Poland. Of course, this does not mean that the role of Czech railways in journeys to work and school has not suffered because of competition from private cars. Marada et al. (2006: 55) show that in 2001 in all counties of the country (Czech *okresy*) the railways came last among means of transport used for commuting. This is the result of a rapid growth of motorisation and a concomitant fall in the use of all public transport – a characteristic feature of the transformation process (Ivan, 2010: 394). However, it should be stressed that the considerable number of trains – even on most local lines – is a factor that encourages a considerable number of passengers to use rail transport for their journeys to work and school. An analogous correlation cannot be seen in the case of public bus transport (Marada, Květoň, 2010: 23).

The arguments listed above do not mean that no discussions about the possible closure of passenger services on some local lines ever take place in the Czech Republic (Zlinský, 2012). Some authors (e.g. Marada et al., 2006: 58) think that in coming years quite a few railway lines will probably disappear as the network is ‘rationalised’.

9. A short comparison of approaches to the local railway question in other Central European countries – Slovakia and Austria

In Central Europe approaches to the question of local railways vary from country to country. The railway network of Slovakia maintained its fairly dense

system of local lines up to the beginning of the 21st century. In 2003, however, 15 local lines of a total length of 396 km (about 11% of the entire Slovak network) were permanently closed for passenger services (www.vlaky.net, 2012). As a result, some important towns – including the capitals of counties (Slovak: *okresy*) – as well as many tourist regions were deprived of their rail connections. This process of closing down passenger services has since been continued, though on a much smaller scale. Today the local railway system in Slovakia consists of isolated lines on which service is often limited to a few pairs of trains a day. This decrease in the significance of local lines correlates with the overall decrease in the number of passengers on Slovak railways that became evident in the second half of the 1990s and in the first years of the 21st century (Hornák, 2006: 22).

In Austria the process of the scaling down of passenger railway services began much earlier than in those Central-Eastern European countries which were under communist rule before 1989. Individual road transport began to displace rail transport as early as the 1950s, especially on connections of local importance (Kreft-Kettermann, 1989: 69). As a result, the closure of sections that were seen as being 'uneconomic' began in the 1970s, though this happened on a large scale only in the second half of the 1980s. These lines, whose infrastructure and rolling stock were antiquated and whose timetables no longer met passengers' expectations, could not compete with individual transport (Ullram, Ladner, 2006: 72). The year 1988 saw the closure of passenger services on 337 km of local lines (more than 5% of the entire Austrian network). Most of the sections closed down in 1988 were located in Lower Austria, which until the 1980s had had the country's densest railway network. Local lines do still play quite an important role in the Western part of Austria (the Tyrol and Salzburg) and also in Upper Austria, this being mainly due to their significance for tourism. One vital factor here, however, is railway policy at the regional level, especially in view of the fact that several Austrian states (German *Länder*) often have completely different approaches to public transport.

10. Conclusions

Despite many similarities in the present socio-economic situation and also in the history of the two countries – especially over the last 50 years – the importance of local railway lines in Poland differs

completely from that in the Czech Republic and this is a good reflection of the general condition of rail transport in each country. Owing to many external and internal factors, Polish local lines – like the whole Polish railway system – have not adjusted to the new circumstances of the free market after 1989. The bad management practices of the PKP and the shortcomings of the communist period have not been eliminated – and so the railways have not been able to compete on the transport market. The process of liberalisation has to date not brought any substantial improvement to the local lines sector. In the Czech Republic, however, a different attitude to railway transport on the part of the authorities, together with much more efficient management (even during the communist period), has made it possible to maintain most of the local railway lines as an important element of the public transport system. Although the role of the railways in the Czech transport system has also decreased after 1989, recent years have seen a levelling off of the number of passengers and the number of connections in operation. This should bring hope that discussions about the future of local lines – which also take place in the Czech Republic – will not result in decisions to reduce or close passenger services – at least not on any significant scale.

The general decline of Polish railways – and not only at the local or regional level – certainly presents a challenge regarding any new national transport policy. It is very difficult to say whether any direct implementation of Czech solutions in Poland could be feasible. Probably the only chance for Polish railways is to concentrate on those lines which still have significant potential for competing with car, bus and – in the case of main lines – air transport. Without a new plan for Polish railways their role in transport at every level – not only local or regional, but also national and international – will rapidly decline still further. The author of the present article is of the opinion that among the local lines which have been closed for passenger services – especially after 2000 – there are many with great potential. A precondition, however, is that the infrastructure is modernised. Certainly the first railway lines of local significance whose role ought to be enhanced are those which are situated in the largest urban agglomerations and those which connect tourist resorts (especially those of the Sudety Mountains) with main railway lines and major cities. Although lines located in urban agglomerations are usually sections of main rail connections and therefore cannot be seen as classic local lines, they could play a very important role at the local or regional level.

One cannot but wonder whether some good Czech solutions at least might not serve as an example for the Polish authorities and railway companies to follow in an attempt to stop the general decline of rail transport in Poland – a decline which is in direct contradiction to present European trends.

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